



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,781	04/10/2001	Tsung-Yuan Hsu	B-3916 617818-6	1039
36716	7590	12/03/2004	EXAMINER	
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			NGUYEN, DUNG T	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,781

Applicant(s)

HSU ET AL.

Examiner

Dung (Michael) T Nguyen

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 19-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 19-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-10 and 19-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 8-9, 19-20, 22-26, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brock et al. (US5781327) in view of Gnauck et al. (US6661976).

With respect to claims 1, 6, 8-9, 19-20, 23-25, 28, and 30, Brock show in Fig. 1 and 2A-2C a laser system with self-locking comprising a single frequency laser 16 having a laser output for delivering laser light at a frequency ω_0 ; a modulator 10 coupled to the output of the laser 16 for generating two sidebands,

the modulator 10 being driven by a RF signal at a frequency W_m ; and an optical path 18. Brock lack a filter coupled to an output of the modulator for suppressing or passing one of the two sidebands. Gnauck teach a filter coupled to an output of the modulator for suppressing or passing one of the two sidebands (col.3, l.26-28). For the benefit of suppressing the sidebands, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Brock a filter coupled to an output of the modulator for suppressing or passing one of the two sidebands; as taught by Gnauck.

With respect to claims 2 and 22, Gnauck disclose an optical coupler (col.9, l.3-5).

With respect to claims 3-5, Brocks disclose the Mach-Zehnder modulator, the electro-optic modulator, etc. (col.1, l.50-51).

With respect to claim 26, Brock disclose the fiber cable (col.3, l.65).

Claims 7, 21, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brock et al. (US57813270) in view of Yao (US5777778).

With respect to claims 7 and 21, Brock disclose all limitations of the claims except for a DFB laser. Yao Teaches a DFB laser (col.12, l.17-18). For the benefit of selecting a reliable single frequency laser, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Brock a DFB laser as taught by Yao.

With respect to claims 31-34, Yao discloses the optical isolator (col.10. l.53).

Claims 10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brock et al. (US5781327) in view of Huber (US5295209). Brock disclose all limitations of the claims except for the Bragg fiber grating. Huber teaches the Bragg fiber grating 72 in Fig.4. For the benefit of suppressing the modulated sideband signals, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Brock the Bragg grating as taught by Huber.\

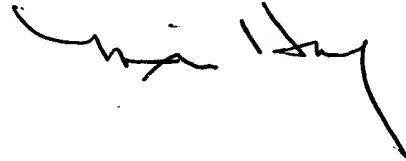
Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brock et al. (US5781327) in view of Wu et al. (US6639946). Brock disclose all limitations of the claim except for a SAW. Wu teach a SAW 20 in Fig.2. For the benefit of having the alternative of a modulator, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Brock the SAW as taught by Wu.

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.



Michael Dung Nguyen

MINSUN OH/HARVEY
PRIMARY EXAMINER